

Exhibit C

KING-DEVICK TEST INC.,)
)
Plaintiff,)
)
v.) No. 1:17-cv-09307 (JPO)
)
NYU LANGONE HOSPITALS,)
NEW YORK UNIVERSITY,)
STEVEN L. GALETTA, and)
LAURA J. BALCER,)
)
Defendants.)
)

Video-recorded deposition of DARRELL G. SCHLANGE, O.D., taken at Illinois College of Optometry, 3241 South Michigan Avenue, Chicago, Illinois, before Donna M. Kazaitis, IL-CSR, RPR, and CRR, commencing at the hour of 1:54 p.m. on Wednesday, November 28, 2018.

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<p>1 MR. KLUFT: I'm sorry. I don't mean 2 to interrupt you. Just for the record and for me, 3 Exhibit 1 is the whole packet of new stuff? 4 MS. McCALLION: I think so. 5 MR. KLUFT: Okay, fair enough. 6 MS. McCALLION: That seemed to be the 7 best way to go there. 8 MR. KLUFT: As long as the reporter 9 has a copy in the right order because mine is no 10 longer in the right order. 11 MS. McCALLION: Yeah, we've got that. 12 Mine's in the order too. 13 BY MS. McCALLION: 14 Q. Okay. What you have in front of you, 15 Exhibit 3, Professor, have you seen this before? 16 This is your subpoena to testify here. (Document 17 tendered to the witness.) 18 A. I think this is one that I got 10 days 19 ago or so. 20 Q. I just wanted to make sure that you 21 had seen them before. 22 A. Yes.</p> <p style="text-align: right;">Page 38</p>	<p>1 A. Yes. 2 Q. He was in your class. 3 A. Yes. 4 Q. Do you recall what class you taught to 5 him? 6 A. It would have been some of the, 7 probably the ocular anatomy course. 8 Q. Ocular anatomy. 9 A. Possibly, in his first year or first 10 couple of years. And then after that it would 11 have been maybe into vision therapy, vision care 12 for children that were on that list of courses 13 that was in one of those documents. 14 Q. So you may have taught him three 15 classes? 16 A. Probably, plus clinic. 17 Q. Plus a clinic. 18 A. Uh-huh. I don't remember the first 19 time I met him, but I remember other times. 20 Q. All right. When Mr. Devick was a 21 senior, he worked on a senior project -- 22 A. Uh-huh.</p> <p style="text-align: right;">Page 40</p>
<p>1 Q. This is what gets you here in the room 2 today. 3 A. I thought the first one got me in the 4 room. 5 Q. The first one had you search for 6 documents. Second one got you in the room. 7 A. I see. 8 Q. So obviously you know Mr. Devick. 9 A. Uh-huh. 10 Q. He was a student of yours; right? 11 A. Right. 12 Q. Do you recall when he was your 13 student? 14 A. Yes. 15 Q. And when was that? 16 A. He graduated I think in '76 in that 17 time period. So would have known him in the mid 18 '70s. 19 Q. Mid '70s. Do you recall when you 20 first met him? 21 A. No. 22 Q. But he was a student of yours.</p> <p style="text-align: right;">Page 39</p>	<p>1 Q. -- for you; is that right? 2 MR. KLUFT: Object to the form. 3 BY MS. McCALLION: 4 Q. You can answer if you understand. If 5 you don't understand, just ask me to rephrase it 6 or clarify it. 7 A. Clarify. 8 Q. So there came a time where Mr. Devick 9 was in your class -- 10 A. Uh-huh. 11 Q. -- right? As a senior? 12 A. Uh-huh. 13 Q. And he worked on a senior project. 14 A. Yes. 15 Q. Just remember to say "Yes" or "No." 16 A. Yes. 17 Q. Okay. Do you recall what the senior 18 project was? 19 A. It was the beginning of the 20 development of the King-Devick Test. 21 Q. And you -- 22 A. The official title was the proposed</p> <p style="text-align: right;">Page 41</p>

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<p>1 King-Devick saccade test and its relation to the 2 Pierce saccade test and reading levels. 3 Q. So we might as well just introduce 4 that as an exhibit. I see that you've got a copy 5 in front of you. 6 A. Oh, I assumed everybody had a copy of 7 that. 8 (Deposition Exhibit 4 was marked 9 for identification.) 10 BY MS. McCALLION: 11 Q. So that's Exhibit 4. (Document 12 tendered to the witness.) 13 Do you recall Mr. Alan King being 14 your student as well? 15 A. Yes. 16 Q. Do you recall the class that they were 17 in while they were working on this project? 18 MR. KLUFT: Object to the form, vague. 19 You can answer. 20 Just for the witness' sake, if a 21 lawyer has a technical issue with the way the 22 question was asked --</p> <p style="text-align: right;">Page 42</p>	<p>1 Q. Okay. Do you remember Mr. King being 2 your student? 3 A. Yes. 4 Q. Do you remember Mr. Devick and 5 Mr. King working together on this paper? 6 A. Yes. 7 Q. Do you remember whether they were in a 8 class together while working on this paper that 9 you taught? 10 A. I believe they were in the same grade, 11 so they obviously were -- 12 Q. In the same class. 13 A. -- same class. 14 Q. Okay. 15 A. So they were fellow students and in 16 the same class and there was a lot of discussion 17 about the development of that. 18 Alan King was one of my TAs in the 19 ocular anatomy lab at that time. In the lab at 20 that time we had -- it was in this building or the 21 one next-door to us -- that had these long labs 22 and at the end of it, you know, we had kind of a</p> <p style="text-align: right;">Page 44</p>
<p>1 THE WITNESS: I see. 2 MR. KLUFT: -- a lawyer like me might 3 object to the form. It doesn't mean -- 4 THE WITNESS: I understand. 5 MR. KLUFT: -- the other attorney has 6 done anything wrong. 7 THE WITNESS: Sure. 8 MR. KLUFT: And it doesn't mean you 9 don't answer the question. 10 THE WITNESS: Okay. 11 MR. KLUFT: I just wanted to be clear 12 in case you were thinking I'm being rude. I'm not 13 attempting to be. 14 MS. McCALLION: He's very rude. 15 BY MS. McCALLION: 16 Q. All right. So let's just backtrack. 17 So this paper here that you have in 18 front of you, the proposed King-Devick saccade 19 test, right, and its relation to the Pierce 20 saccade test and reading levels. This is familiar 21 to you. 22 A. Indeed, very much.</p> <p style="text-align: right;">Page 43</p>	<p>1 prep room which often became like an office room. 2 So I was the instructor and we had 3 an assistant, another instructor, who I think was 4 Gary Porter, and then we had TA to help with the 5 lab, set it up, help answer student questions, and 6 that was Alan King. 7 Q. I see. 8 A. And so the prep room could be used to 9 set up labs but also like an office. And so it -- 10 obviously in 50 years I've done a couple hundred 11 of these different kinds of student projects and 12 so forth but this one is quite vivid in my memory. 13 Q. Why is that? 14 A. Because it was a situation where when 15 lab wasn't going, we spent a lot of time talking. 16 Other students would come in, and Steve Devick was 17 one of those. It was a situation, they were in 18 their last year and they were in clinic, and it 19 was a situation where we would talk about cases 20 that they had just seen. 21 For example, I mentioned this 22 before, I had this patient today, you know, and</p> <p style="text-align: right;">Page 45</p>

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<p>1 everything checked out okay but the teacher says 2 there's something wrong, something's going on, 3 this child is not reading where the child should 4 be, several grade levels below. 5 So we talked about that case. And 6 it might have been three, four, maybe five other 7 students that would come in. A lot of 8 camaraderie. 9 So we would discuss, okay, what are 10 some possibilities that we could do with this 11 patient that maybe could help solve the dilemma of 12 the teacher that sent them here knowing that there 13 is a visual problem but when we do the typical 14 exam nothing shows up, maybe we need to do 15 something different. 16 So we explored different 17 possibilities. At that time the Pierce test was 18 there. So we would say well, let's try that. 19 Well, the patient didn't do very 20 good, let's try something else. And then another 21 student would say, you know, one of the issues 22 with the Pierce test is that the test cards, they</p> <p style="text-align: right;">Page 46</p>	<p>1 THE VIDEOGRAPHER: We are now going 2 back on the record at 2:51 p.m. 3 THE WITNESS: Okay. Looking at 4 Exhibit 5 -- 5 BY MS. McCALLION: 6 Q. Right, yes. 7 A. -- again, this is the orientation card 8 or the introductory card just to make sure that 9 they get the concept of eye movements and how to 10 follow and read the numbers. 11 Q. And this is the Pierce test; right? 12 A. This is the Pierce. 13 Q. Did you teach this in your lab in 14 1976? 15 A. More in clinic. 16 Q. In the clinic, in the clinic, okay. 17 A. So in looking at this, discussion 18 would come about. And concurrent with this in 19 society, particularly in the Chicago area, where 20 organizations, advocates for helping children with 21 learning disabilities, that was kind of the advent 22 of some of those movements of organizations that</p> <p style="text-align: right;">Page 48</p>
<p>1 require a large movement of the eye, not typical 2 like what you might find with, not typical like 3 what you might find with normal reading. So the 4 question was maybe we need to look at this another 5 way and possibly explore other alternatives. 6 So in looking at the Pierce test -- 7 and I'm sure that you've looked at that -- 8 Q. Is that a copy of the Pierce test 9 right there? 10 A. Yes, uh-huh. 11 MR. KLUFT: Can we go off the record 12 for a second? 13 THE WITNESS: I think this is in the 14 countersuit, the document. 15 MS. McCALLION: Yes, yes. We know 16 about that. 17 Let's just go off the record. 18 THE VIDEOGRAPHER: We are going off 19 the record at 2:43 p.m. 20 (A recess was taken.) 21 (Deposition Exhibit 5 was marked 22 for identification.)</p> <p style="text-align: right;">Page 47</p>	<p>1 really work on giving children with learning 2 difficulties some special attention at school. 3 Prior to that they were kind of left alone, unless 4 they went to a private school. 5 So we got a lot of these referrals 6 because teachers -- we had a reputation that we 7 could sort out some of these visual things. And 8 these children that teachers were concerned about 9 because they just weren't performing, they were 10 great on the football field or soccer -- soccer 11 wasn't so much then -- but there were good at 12 athletics they just couldn't read; they were 13 pretty good in math but they just couldn't read. 14 So at that time we had the Pierce 15 test, which, again, they had to read these from 16 left to right and so forth, and so they were like 17 15 down. 18 So then you would get into the Card 19 2 and 3 which became increasingly difficult 20 because in this one here you had the lines to help 21 guide the eye as you went from left to right. And 22 here the lines were missing, so now you had to</p> <p style="text-align: right;">Page 49</p>

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<p>1 have good, what we call saccades and fixation 2 ability. And here everything compresses closer 3 together. So it makes it even more difficult in 4 Card 3.</p> <p>5 So in our discussion we had, you 6 know, those children would often do very poorly on 7 this. So the question was, you know, they made a 8 tremendous number of mistakes in going from here 9 to there. And with eye movement and recordings we 10 know today that that's a real tough task for a 11 beginning reader with an immature visual system to 12 make that large movement from eight inches or so.</p> <p>13 So a lot of the kids have issues 14 with that, and that's why when they're reading a 15 regular book they kind of go to the end of one 16 line and get lost or skip lines or words and so 17 on.</p> <p>18 So in our discussion it became, you 19 know, maybe we need to do something a little 20 differently where it's more like not eight inches 21 saccade eye movement, but something that resembles 22 a little bit more reading, the actual reading,</p> <p style="text-align: right;">Page 50</p>	<p>1 different.</p> <p>2 So the thought was, hey, let's try 3 something different. So would mock up something 4 like this and then try it on a patient. The kid 5 seemed to do better. You know, we don't have any 6 norms, no set instructions, but it was that 7 process of enlightenment from the student side as 8 well as hey, you know, maybe this will work.</p> <p>9 So Alan King and Devick, or King 10 and Devick, kind of wanted to take this on as a 11 project.</p> <p>12 Q. Right.</p> <p>13 A. Okay. We saw the problems with what 14 we had. We saw the patients that had these 15 problems that were hard to diagnose or to identify 16 as to what's wrong. And we found that, you 17 know -- because on these second and third cards 18 they just couldn't do it as well.</p> <p>19 So we found that there seemed to be 20 some benefit in making these numbers on the 21 King-Devick here more random-like but not just 22 left-right, left-right, but make it more like a</p> <p style="text-align: right;">Page 52</p>
<p>1 which we know involves these little eye movements 2 that go across the page and so began to play 3 around with that idea.</p> <p>4 Again, this was a very, from an 5 instructor, this is a very positive kind of an 6 interaction. I'm sure you had it in law school 7 where you had certain professors that things 8 clicked, or if you taught, that you had certain 9 students where you get the sense that, yeah, they 10 get it. You know, you can see the mind going 11 into, yeah, this is the problem and these are 12 options, and you can just see the whole discerning 13 process underway.</p> <p>14 So with the different students in 15 that office area in the back of the lab, we 16 explored a lot of different things. There were 17 obviously with five or six students other points 18 of discussion, but these were very refreshing to 19 me. And it was like, you know, you just observe 20 this and you kind of help them along but you see 21 that they're starting to come up with something 22 creative and something new and something</p> <p style="text-align: right;">Page 51</p>	<p>1 reading situation.</p> <p>2 So here we had these eight 3 different lines and five on each. So here you had 4 40 different numbers that they had to read. So it 5 kind of clicked with them and here you had 30, you 6 know, 15 and 15.</p> <p>7 So you had more stimuli that the 8 patient had to read more numbers. So you had a 9 larger sampling of their reading ability. And 10 they started to kind of play around with the 11 format of this and try it on their patients.</p> <p>12 So at this point it was just, you 13 know, hey, this is an idea I have and the back and 14 forth of discussion, it was very rich.</p> <p>15 Q. So did you work with King and/or 16 Devick to create the King-Devick Test?</p> <p>17 A. I would say that, you know, in this 18 case in the format of students interacting on 19 cases they've seen, the discussion really started 20 with them, you know.</p> <p>21 Q. With them.</p> <p>22 A. With them and their patients. So they</p> <p style="text-align: right;">Page 53</p>

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<p>1 came up with some of these ideas and looking at 2 what are the options available at that time. This 3 was pretty much it or just doing, you know, taking 4 a pencil and seeing how the patient does that 5 movement.</p> <p>6 So a lot of the creativity really 7 was generated at their level. We would have some 8 discussions and maybe modify it and so on. But a 9 lot of the basic concepts, the creativity, you 10 know, we bounced these ideas around among each 11 other and I would say as a mentoring on my part it 12 was more to keep them focused on it and to, you 13 know, work out a plan as to how we could really 14 test this out.</p> <p>15 Q. So is it fair to say that the 16 King-Devick Test is based on the Pierce test?</p> <p>17 A. In terms of a major -- that was one of 18 the major problems that the Pierce test had is 19 that it had these large saccades.</p> <p>20 A second problem was that the score 21 that you got at the end had just a mean, an 22 average score, and there were no standard</p> <p style="text-align: right;">Page 54</p>	<p>1 complete that as well as a separate set of data, 2 the errors.</p> <p>3 So it was generated by patients 4 that we had, a lot of discussion we had, ideas 5 that floated around, and looking at some of the 6 problems with the Pierce in its construction and 7 in its evaluation of the data and how do you 8 relate that to patient care.</p> <p>9 That was a huge problem. The 10 concept of, you know, let's have something that we 11 can get a number on, a score on, not just look at 12 the eyes, but something we can get a score on, but 13 it fell short in those two major areas.</p> <p>14 So the development of the 15 King-Devick worked around those and tried to 16 accommodate those errors by changing the pattern 17 of the saccades and the number of, what constitute 18 a failing and a passing score, determining 19 standard deviations on those different scores for 20 kids at different age levels.</p> <p>21 In their study they also went back 22 to do that for Pierce using Pierce's data to come</p> <p style="text-align: right;">Page 56</p>
<p>1 deviations for that data.</p> <p>2 A standard deviation in many of 3 these tests, even today, gives you a criteria for 4 success or failure. So if on a test like this you 5 have a mean and you have a standard deviation, and 6 the performance goes outside of that standard 7 deviation, that is a common criteria that we use 8 in many tests, perceptual tests as well as a 9 failing score.</p> <p>10 So if you have that data and you 11 have this standard deviation and if the score the 12 child gets is below that, they fail that score. 13 Pierce did not have that.</p> <p>14 So it was kind of like, you know, 15 we got numbers here. But, you know, and Pierce 16 also just looked at -- came up with one score. He 17 would factor in the time it took to complete this 18 test and do a formula to take into consideration 19 errors, mistakes that they made, but it would be 20 one score that was the result of the test.</p> <p>21 With the King-Devick, and still 22 today, there was looking at the time it takes to</p> <p style="text-align: right;">Page 55</p>	<p>1 up with standard deviations which gave that test a 2 great improvement. But the Pierce, when this 3 started going, the Pierce test pretty much, you 4 know, didn't last very long.</p> <p>5 Q. Do you think the King-Devick Test is 6 an improvement upon the Pierce test?</p> <p>7 A. Huge. But, again, looking at 50 8 years, I have worked with a lot of students and a 9 lot of different projects, it's just what, you 10 know, it's what a teacher would like, the students 11 are connecting and going that extra mile and 12 they're letting their creativity just sort of go 13 off, and sometimes you have to kind of reign them 14 in a little bit. But it was a good experience, 15 which is why it's still very vivid in my memory.</p> <p>16 Q. Okay. Just looking at the King-Devick 17 Test. I know you have your own copy. We can use 18 the copy of the King-Devick Test that's in that 19 paper that I gave to you.</p> <p>20 A. Sure. This one?</p> <p>21 Q. Right, you have that Exhibit 4. And 22 you got to flip to the end a little bit. There's</p> <p style="text-align: right;">Page 57</p>

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<p>1 numbers on the bottom right. Do you see those?</p> <p>2 The number I'm looking at is 298340.</p> <p>3 MR. PERKINS: These little numbers</p> <p>4 right here, 340.</p> <p>5 THE WITNESS: Yes, okay.</p> <p>6 BY MS. McCALLION:</p> <p>7 Q. So I'm just looking at the spacing of</p> <p>8 the numbers on this test card.</p> <p>9 A. Uh-huh.</p> <p>10 Q. Right? You have this in front of you,</p> <p>11 the 298340?</p> <p>12 A. Yeah.</p> <p>13 Q. Did you work with Mr. Devick and</p> <p>14 Mr. King --</p> <p>15 A. Uh-huh.</p> <p>16 Q. -- on designing this particular card?</p> <p>17 A. Yeah, there were several different</p> <p>18 editions to that, as I recall. Eventually the key</p> <p>19 thing was to be random but the numbers close</p> <p>20 enough to where it would simulate typical reading</p> <p>21 ability, reading eye movements.</p> <p>22 So we had different editions that</p> <p style="text-align: right;">Page 58</p>	<p>1 also teaching something called the Vinset Test?</p> <p>2 A. No. I mean it was there. It used</p> <p>3 letters, I think, instead of numbers. The</p> <p>4 clinical situation we were dealing with is those</p> <p>5 that often were referred in for academic issues,</p> <p>6 and these might be first grader, second. And it</p> <p>7 was a real issue because they didn't want to read,</p> <p>8 you know, you get the whole, the whole global</p> <p>9 thing of, you know, a child begins to have</p> <p>10 behavioral issues if they can't function in a</p> <p>11 classroom.</p> <p>12 So many of those kids had poor</p> <p>13 recognition skills. So letters, even though it</p> <p>14 seems simple, were difficult. And there's a thing</p> <p>15 called visual verbal processing and it's a</p> <p>16 perceptual motor kind of a thing. When the child</p> <p>17 looks at it, they have to interpret and then they</p> <p>18 have to verbalize it, and that whole process,</p> <p>19 visual-verbal, is delayed in children that have</p> <p>20 these learning related problems.</p> <p>21 So that was more difficult for them</p> <p>22 when there were letters instead of numbers.</p> <p style="text-align: right;">Page 60</p>
<p>1 they would come up with and maybe try it on a</p> <p>2 patient, just kind of like testing it out in a</p> <p>3 preliminary way to see, you know, how does this</p> <p>4 work.</p> <p>5 Q. Okay.</p> <p>6 A. Yeah, that was kind of try something,</p> <p>7 what's our impression, let's modify it, and it was</p> <p>8 that kind of a process.</p> <p>9 Q. So the spacing there serves an</p> <p>10 important function; right?</p> <p>11 A. Yes.</p> <p>12 Q. And it's because it better measures</p> <p>13 how people read?</p> <p>14 A. The eye movements involved are closer</p> <p>15 to what reading eye movements are. More so than</p> <p>16 the example of where it's eight inches,</p> <p>17 left-right, left-right.</p> <p>18 So in that respect it was</p> <p>19 constructed to be more similar to reading eye</p> <p>20 movements as we would measure.</p> <p>21 Q. And do you recall around the same time</p> <p>22 when you were working with Mr. King and Devick</p> <p style="text-align: right;">Page 59</p>	<p>1 Numbers were easier for them to understand.</p> <p>2 So that's why that test was</p> <p>3 available, but we didn't really focus much on it.</p> <p>4 Q. Do you remember teaching anything</p> <p>5 called the Gilbert Test?</p> <p>6 A. I was not familiar with the Gilbert</p> <p>7 Test until a couple of the papers that came out</p> <p>8 after the New York study was done that made</p> <p>9 reference to the Gilbert Test. But we did not</p> <p>10 discuss the Gilbert at that time.</p> <p>11 Q. Do you remember the year of the</p> <p>12 New York study you just referred to?</p> <p>13 A. I think it was, the paper was '83</p> <p>14 possibly, something like that. Somewhere in my</p> <p>15 piles here I have the date of that. I was at that</p> <p>16 point, the Gilbert was not in any academic</p> <p>17 importance to us.</p> <p>18 Q. Okay.</p> <p>19 A. Just on that point. Since going back</p> <p>20 to the Gilbert Test, after hearing about it and</p> <p>21 knowing that it is mentioned in the subpoena --</p> <p>22 did I teach it? It's quite dramatic what was</p> <p style="text-align: right;">Page 61</p>

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<p>1 and Mr. Devick handed you the final senior paper.</p> <p>2 A. Uh-huh.</p> <p>3 Q. And that's what we have in front of</p> <p>4 us, I believe.</p> <p>5 A. Sure.</p> <p>6 Q. Do you remember your impression of it</p> <p>7 at the time?</p> <p>8 A. The whole idea of the project was very</p> <p>9 excellent and positive and, you know, brought</p> <p>10 something new to the profession that we didn't</p> <p>11 have before.</p> <p>12 Q. Do you remember what grade you gave</p> <p>13 them?</p> <p>14 A. I don't. I hear that it was a B.</p> <p>15 I've heard that for years.</p> <p>16 Q. You don't remember.</p> <p>17 A. I know it was a recognized paper. You</p> <p>18 know, having taught for many years and having this</p> <p>19 experience where, you know, maybe the student</p> <p>20 doesn't feel they got the grade they deserved or</p> <p>21 whatever, and, you know, years later we'll see</p> <p>22 them at a meeting and we'll laugh about it and</p> <p style="text-align: right;">Page 74</p>	<p>1 One was thoroughness of research;</p> <p>2 efficiency and ability to meet deadlines; 3,</p> <p>3 ability to work independently; 4, quality and</p> <p>4 organization of writing; 5, grammar, spelling,</p> <p>5 punctuation, follow the syllabus guidelines; and</p> <p>6 6, completeness of referencing.</p> <p>7 Just looking at, you know, not to</p> <p>8 make any judgments at this point, but there were</p> <p>9 more references that we did look at at that time</p> <p>10 than what are listed here in the final document.</p> <p>11 Q. Do you recall what those references</p> <p>12 were?</p> <p>13 A. Well, some of the work of like Helen</p> <p>14 Robinson, people like that.</p> <p>15 Q. So Helen Robinson --</p> <p>16 A. You know, other people, even Pierce.</p> <p>17 So I don't want -- I'm not certain that it was a</p> <p>18 B. I have always viewed this as an excellent</p> <p>19 paper. We don't just look at the outcome of the</p> <p>20 study and what all the work is involved, these</p> <p>21 other parameters involved. But the word is that I</p> <p>22 gave them a B. I do not recall that.</p> <p style="text-align: right;">Page 76</p>
<p>1 maybe go have a drink and it's history.</p> <p>2 This, you know, I never imagined --</p> <p>3 I know that this has been mentioned numerous times</p> <p>4 that it was a B. And, again, I have no record</p> <p>5 that it was a B, but it has been an issue and I</p> <p>6 never imagined that I would have to discuss this</p> <p>7 in a subpoena in federal court.</p> <p>8 Q. I can imagine.</p> <p>9 A. I do want to mention that it isn't</p> <p>10 just one criteria. A basic purpose of this course</p> <p>11 is to help the student understand the scientific</p> <p>12 method so they're better able to discern what's a</p> <p>13 good study, what's bad, for the benefit of their</p> <p>14 patients. Not that they're going to do research</p> <p>15 in their practice, their clinical practice, but</p> <p>16 that they know what to look for, what's good</p> <p>17 publication, what's good research, what isn't.</p> <p>18 At that time I know we had the same</p> <p>19 criteria. Today we have criteria, because today</p> <p>20 our students still do this, today we use six</p> <p>21 points. I think there might have been five at</p> <p>22 that point.</p> <p style="text-align: right;">Page 75</p>	<p>1 Q. Okay. Well, we'll --</p> <p>2 A. It wasn't just based on one factor.</p> <p>3 It was based on other things because, again, we</p> <p>4 wanted them a learning experience in the whole</p> <p>5 field of doing research and putting it together</p> <p>6 for a publication.</p> <p>7 Q. You said a little bit earlier that</p> <p>8 this paper, their senior paper, was a recognized</p> <p>9 paper. What do you mean by that?</p> <p>10 A. What I mean by that is that even</p> <p>11 though at that time it was kind of at meetings</p> <p>12 would be spread by kind of word of mouth and, you</p> <p>13 know, at some meetings it might be focused on</p> <p>14 child care, reading and vision, you know. It used</p> <p>15 to start to come forth that hey, you know, those</p> <p>16 guys had an interesting idea.</p> <p>17 So at that point it was basically</p> <p>18 at meetings, check this out, you know, and people</p> <p>19 would check it out and like it.</p> <p>20 Q. Were these meetings before they handed</p> <p>21 in the final paper to you?</p> <p>22 A. No.</p> <p style="text-align: right;">Page 77</p>

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<p>1 Q. Okay. It was meetings after they had 2 handed in the final paper.</p> <p>3 A. Yeah.</p> <p>4 Q. Do you know how people learned of it?</p> <p>5 A. A lot that, and when it was done, 6 included in the battery of tests that New York 7 did.</p> <p>8 Q. When was that?</p> <p>9 A. I think that was in the early '80s.</p> <p>10 Q. Okay. So just going back to when 11 Mr. King and Mr. Devick handed you this paper, was 12 there a policy at the time at the school to give 13 senior papers to the library?</p> <p>14 MR. KLUFT: Objection, foundation. 15 BY MS. McCALLION:</p> <p>16 Q. You can answer.</p> <p>17 A. We would do that with all of them.</p> <p>18 Q. You did that with all of them.</p> <p>19 A. They were put in a special place, 20 special cabinet. I tried to keep copies of any of 21 those that I was involved with. But they were 22 kept in the library. Most of them just collected</p> <p style="text-align: right;">Page 78</p>	<p>1 the original King-Devick was like and just kind of 2 tweak it around a little bit.</p> <p>3 So it was like for an internal 4 thing that students, maybe some faculty would go 5 in and sort that out. But the way it spread 6 outside of the institution was more by at a 7 meeting and just, you know, word of mouth.</p> <p>8 Q. Okay. So do you recall having a copy 9 of their senior paper and physically giving it to 10 the library?</p> <p>11 A. I don't know how that happened. I 12 just know that the library somehow ended up 13 getting copies of all the papers.</p> <p>14 Q. Do you know when the library first got 15 the copy of the King-Devick paper?</p> <p>16 A. I don't. I assume shortly after it 17 was done.</p> <p>18 Q. In 1976.</p> <p>19 A. Yeah.</p> <p>20 Q. Did you retain a copy of their final 21 paper?</p> <p>22 A. I did.</p> <p style="text-align: right;">Page 80</p>
<p>1 dust. And when the college went through 2 remodeling, they had to eliminate those.</p> <p>3 Q. Right, we heard about that.</p> <p>4 A. So many of them were returned to the 5 original author, the student author.</p> <p>6 Q. So was it a policy at the time to give 7 the student papers to the library?</p> <p>8 MR. KLUFT: Objection, foundation.</p> <p>9 THE WITNESS: No, I don't think it was 10 a formal policy. I think, you know, at that time 11 when maybe -- you know, today that might 12 immediately thereafter lead to a publication. At 13 that time the students, they graduated, they left. 14 But some of the work was really good, including 15 this.</p> <p>16 So we wanted this to be somewhere 17 that if another student, like the one that I 18 mentioned, Blashill, the one where we did the 19 modification --</p> <p>20 BY MS. McCALLION:</p> <p>21 Q. Yes.</p> <p>22 A. -- you know, he could go and see what</p> <p style="text-align: right;">Page 79</p>	<p>1 Q. Did you start to use that final paper 2 in your teachings in the lab here or in the clinic 3 or in your classes?</p> <p>4 A. No.</p> <p>5 Q. What did you do with it?</p> <p>6 A. Well, we didn't -- at that time we 7 didn't start on a regular basis of using that in 8 the clinic. That came about a little later. As 9 it became more formalized, you know, with the test 10 plates and the like.</p> <p>11 So to make those kinds of changes 12 in the curriculum and incorporate in the clinic, 13 you need something like this, you need something, 14 some sort of norms that you can quickly look at. 15 And that came but we didn't have that at first.</p> <p>16 We had all the numbers and 17 everything, but to have this in the form in which 18 a clinician could say in short time, yeah, this 19 child failed, this child didn't, that was a 20 process of transitioning it into the profession.</p> <p>21 Q. I see.</p> <p>22 MR. KLUFT: Can I just state for the</p> <p style="text-align: right;">Page 81</p>

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<p>1 for bringing that.</p> <p>2 (Deposition Exhibit 7 was marked</p> <p>3 for identification.)</p> <p>4 MS. McCALLION: And let's just mark as</p> <p>5 Exhibit 8.</p> <p>6 MR. PERKINS: There's two sets of</p> <p>7 those.</p> <p>8 MS. McCALLION: Yeah.</p> <p>9 MR. PERKINS: That was the stuff he</p> <p>10 was talking about Reading Plus and --</p> <p>11 MS. McCALLION: Taylor.</p> <p>12 MR. PERKINS: -- Taylor.</p> <p>13 (Deposition Exhibit 8 was marked</p> <p>14 for identification.)</p> <p>15 BY MS. McCALLION:</p> <p>16 Q. So Exhibit 8 references the testimony</p> <p>17 you gave prior to the break about Taylor and the</p> <p>18 Taylor test.</p> <p>19 MR. PERKINS: You got to have a verbal</p> <p>20 answer.</p> <p>21 THE WITNESS: Yes, specifically the</p> <p>22 eye movement recording system they had.</p> <p style="text-align: right;">Page 86</p>	<p>1 BY MS. McCALLION:</p> <p>2 Q. I thought you said that. I think you</p> <p>3 made a reference to New York. Maybe that's what</p> <p>4 it was.</p> <p>5 Are you familiar with the NYSOA?</p> <p>6 A. Yes.</p> <p>7 Q. Okay. What is the NYSOA?</p> <p>8 A. In New York they developed or wanted</p> <p>9 to do a battery of tests for children in the</p> <p>10 New York public school system and they wanted to</p> <p>11 have a quick and effective way to look at eye</p> <p>12 movements.</p> <p>13 So they selected the King-Devick as</p> <p>14 the part of their battery to use. And they had</p> <p>15 other alternatives or other choices like the</p> <p>16 Pierce and some recording systems that were very</p> <p>17 cumbersome. But they included the King-Devick in</p> <p>18 their battery of tests for these large sample of</p> <p>19 public school children in New York City.</p> <p>20 Q. How do you know about this test, the</p> <p>21 NYSOA test?</p> <p>22 A. Well, they put their name on it after</p> <p style="text-align: right;">Page 88</p>
<p>1 MR. KLUFT: This is the Reading Plus.</p> <p>2 MS. McCALLION: Yes.</p> <p>3 MR. KLUFT: And does it include these</p> <p>4 pages as well? It looks like a separate document.</p> <p>5 MR. PERKINS: Well, that goes with the</p> <p>6 Taylor pages.</p> <p>7 MS. McCALLION: Yeah.</p> <p>8 MR. KLUFT: Okay.</p> <p>9 MS. McCALLION: Let's do one, two,</p> <p>10 three, four, five pages total.</p> <p>11 THE WITNESS: And the comment about</p> <p>12 Taylor, again, is that concurrent with all this</p> <p>13 other stuff going on, he and his company developed</p> <p>14 the eye movement recording systems that today is</p> <p>15 still used.</p> <p>16 BY MS. McCALLION:</p> <p>17 Q. You mentioned before the break, I</p> <p>18 think you mentioned, correct me if I'm wrong,</p> <p>19 please, the NYSOA?</p> <p>20 A. Uh-huh.</p> <p>21 MR. KLUFT: I'll just object. I don't</p> <p>22 recall that, but if the witness says it is...</p> <p style="text-align: right;">Page 87</p>	<p>1 they used it. Somewhere there's a publication. I</p> <p>2 have it somewhere here.</p> <p>3 Q. That's okay.</p> <p>4 A. That they made after the procedure was</p> <p>5 done, after they had done all the data, and their</p> <p>6 conclusion was that it was an effective screening</p> <p>7 method.</p> <p>8 Q. So you found out about the NYSOA</p> <p>9 testing once their publication came out.</p> <p>10 A. Yeah.</p> <p>11 Q. You were not involved --</p> <p>12 A. No.</p> <p>13 Q. -- in the NYSOA testing.</p> <p>14 A. No. So they put their name on it.</p> <p>15 Q. The NYSOA put their name on it.</p> <p>16 A. Yeah.</p> <p>17 Q. On the test.</p> <p>18 A. Yeah, on the test, based on their use</p> <p>19 of it in this huge screening project they did in</p> <p>20 New York City.</p> <p>21 Q. Did anyone from the NYSOA contact you</p> <p>22 at any point in time about this particular test?</p> <p style="text-align: right;">Page 89</p>

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<p>1 A. No. That was part of the word of</p> <p>2 mouth thing that was growing about this test, like</p> <p>3 hey, you know, check this out, this is good.</p> <p>4 Q. How do you know that?</p> <p>5 A. Because I went to meetings and I know</p> <p>6 this was the nature of a lot of communication.</p> <p>7 Q. So what meetings are you referring to</p> <p>8 there?</p> <p>9 A. They could be -- at that time it would</p> <p>10 be the Academy of Optometry, American Academy of</p> <p>11 Optometry, American Optometric Association, it</p> <p>12 would be the Optometric Extension Program, OEP.</p> <p>13 At that time there were a lot of</p> <p>14 local networking systems or groups that would</p> <p>15 meet, for example, in Chicago every year and</p> <p>16 basically speakers and participants were from this</p> <p>17 metropolitan area. So a lot of the format of</p> <p>18 those was not just lecture but a lot of time just</p> <p>19 to mingle and say, you know, hey, this worked for</p> <p>20 me, check it out.</p> <p>21 Q. And when you said before meetings at</p> <p>22 that time, are we talking about 1976, 1977?</p> <p style="text-align: right;">Page 90</p>	<p>1 A. No, just that -- you mean that it</p> <p>2 would be sold there or something or what?</p> <p>3 Q. No, they just had a copy.</p> <p>4 A. Yeah, no, it just was, you know, hey,</p> <p>5 look, we don't have a lot of options when it comes</p> <p>6 to eye movements that's quick and effective, you</p> <p>7 know, you got the elaborate stuff with the</p> <p>8 recording systems and technology, but to actually</p> <p>9 have something that would be a few minutes</p> <p>10 screening test, that was new and very positive</p> <p>11 reception of people.</p> <p>12 Q. So if you could help me understand the</p> <p>13 process. Mr. King and Mr. Devick were students,</p> <p>14 they completed the senior project, they handed the</p> <p>15 paper in to you. You graded it. We're not going</p> <p>16 to go into that. And then at some point in time a</p> <p>17 copy of that paper was given here to the library</p> <p>18 at ICO?</p> <p>19 MR. KLUFT: Objection. You can</p> <p>20 answer.</p> <p>21 THE WITNESS: It probably was just</p> <p>22 within that year.</p> <p style="text-align: right;">Page 92</p>
<p>1 A. Probably '60s, '70s.</p> <p>2 Q. '70s.</p> <p>3 A. Yeah, into the '80s.</p> <p>4 Q. Late '70s?</p> <p>5 A. I suppose, sure.</p> <p>6 Q. At some of these meetings the</p> <p>7 King-Devick Test was being discussed. Is that</p> <p>8 your recollection?</p> <p>9 A. Not from the podium.</p> <p>10 Q. Not from the podium. But in the</p> <p>11 mingling of --</p> <p>12 A. Yeah.</p> <p>13 Q. -- the attendees?</p> <p>14 A. Yeah. Yes.</p> <p>15 Q. Were you part of that discussion</p> <p>16 during this mingling?</p> <p>17 A. I would be.</p> <p>18 MR. KLUFT: I'm just going to object</p> <p>19 to the form, vague.</p> <p>20 BY MS. McCALLION:</p> <p>21 Q. Do you recall the people having the</p> <p>22 test at these meetings?</p> <p style="text-align: right;">Page 91</p>	<p>1 BY MS. McCALLION:</p> <p>2 Q. Within the year.</p> <p>3 A. You know, because all the senior</p> <p>4 papers had to be turned in at about the same time.</p> <p>5 So that's my recollection is that just to have a</p> <p>6 place where people could, fellow students could</p> <p>7 look at it and see it.</p> <p>8 Q. So what's your understanding of how</p> <p>9 people outside of ICO found out about this</p> <p>10 King-Devick project?</p> <p>11 MR. KLUFT: Objection, foundation.</p> <p>12 THE WITNESS: Probably -- you know,</p> <p>13 this is the publication I was looking for, and</p> <p>14 this I think is even mentioned in one of the</p> <p>15 countersuit things. But this was the results of</p> <p>16 their study.</p> <p>17 BY MS. McCALLION:</p> <p>18 Q. The NYSOA.</p> <p>19 A. Yeah.</p> <p>20 Q. Okay. Well, we'll probably --</p> <p>21 A. That's a group --</p> <p>22 Q. Let's just leave this hear for now.</p> <p style="text-align: right;">Page 93</p>

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<p>1 A. -- out of New York.</p> <p>2 So they --</p> <p>3 Q. Hold on one second --</p> <p>4 A. Yeah.</p> <p>5 Q. -- because we're also jumping around.</p> <p>6 So this is a copy of the NYSOA</p> <p>7 paper about the K-D Test.</p> <p>8 A. Their study in New York City.</p> <p>9 Q. Okay.</p> <p>10 A. And the results.</p> <p>11 MR. KLUFT: I'm sorry to interrupt,</p> <p>12 Counsel, but could you ask him what the year is</p> <p>13 just so we can further identify this for the</p> <p>14 record.</p> <p>15 BY MS. McCALLION:</p> <p>16 Q. Well, I see 1983; right?</p> <p>17 A. 1983.</p> <p>18 Q. Okay.</p> <p>19 A. Yeah.</p> <p>20 Q. We can make a copy of this. I don't</p> <p>21 really feel rushed to do that. So we can just let</p> <p>22 that be.</p> <p style="text-align: right;">Page 94</p>	<p>1 people outside of ICO found out about the King and</p> <p>2 Devick project shortly after it was handed in to</p> <p>3 you as their senior paper?</p> <p>4 A. I don't know. I would assume that</p> <p>5 from my experience this paper was something more</p> <p>6 tangible that the people could look at and say</p> <p>7 this is what the test is. In my recollection we</p> <p>8 talked about it but nobody said to me can you get</p> <p>9 me a copy of it.</p> <p>10 Q. So I'm not sure I understand what</p> <p>11 you're saying. When you said this paper was</p> <p>12 something more tangible that people could look at</p> <p>13 and say this is what the test is.</p> <p>14 A. It was a publication.</p> <p>15 Q. What do you mean by that?</p> <p>16 A. There's a publication right here, this</p> <p>17 document here --</p> <p>18 Q. Right, right, right.</p> <p>19 A. -- was a publication.</p> <p>20 MR. KLUFT: The witness --</p> <p>21 THE WITNESS: So people could see that</p> <p>22 publication.</p> <p style="text-align: right;">Page 96</p>
<p>1 But I think my question is a little</p> <p>2 bit different because I see why you're giving this</p> <p>3 to me. But let me backtrack and try and explain</p> <p>4 what I'm asking.</p> <p>5 When Mr. King and Mr. Devick handed</p> <p>6 their paper in, that was in 1976; right?</p> <p>7 A. (Witness nodding.)</p> <p>8 Q. And so based on what I'm hearing you</p> <p>9 say, people outside of ICO found out about the</p> <p>10 paper around 1976 or 1977 or 1978. Do you agree?</p> <p>11 A. In the format that I mentioned, yes.</p> <p>12 Not from the lecture podium but more in just study</p> <p>13 groups and case-based study groups where people</p> <p>14 would get together or, you know, in a meeting they</p> <p>15 would allow time for bring in cases and let's</p> <p>16 discuss it. Kind of like the format that we would</p> <p>17 often do here at the college with students.</p> <p>18 Q. And so this point in time that we're</p> <p>19 talking about now, late '70s, is well before NYSOA</p> <p>20 published the paper, because that was in 1983.</p> <p>21 A. Yeah.</p> <p>22 Q. So do you have an understanding of how</p> <p style="text-align: right;">Page 95</p>	<p>1 BY MS. McCALLION:</p> <p>2 Q. Right, okay. So we're, again, talking</p> <p>3 about this NYSOA --</p> <p>4 A. Yeah.</p> <p>5 Q. -- article published in 1983.</p> <p>6 A. Yeah.</p> <p>7 Q. Do you know when NYSOA started testing</p> <p>8 the K-D Test?</p> <p>9 A. No. I think it's probably in there</p> <p>10 somewhere. Probably within the year before. I</p> <p>11 don't know.</p> <p>12 Q. A year before 1983?</p> <p>13 MR. KLUFT: Objection.</p> <p>14 THE WITNESS: I have no idea.</p> <p>15 BY MS. McCALLION:</p> <p>16 Q. Okay.</p> <p>17 A. I'm sure it's in a document there</p> <p>18 someplace. It just was published at that time.</p> <p>19 And, you know, when the delay from when it was</p> <p>20 submitted to published I'm not sure.</p> <p>21 Q. The delay, are you referring to the</p> <p>22 delay on NYSOA paper?</p> <p style="text-align: right;">Page 97</p>

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